



Radiological protection in a University

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A university is an academic institution !

- Missions: Balance between teaching, research and community service activities
- This teaching-research complementarities is at the heart of the university project.
 - 530 research units in all subject areas
 - 20 large-scale inter-disciplinary research centers
 - 1500 contractual researchers
 - 1000 regular research contracts, of which 65 FP6 european projects in all thematic priorities.

 In different research groups at different faculties, ionising radiations are used !!

Radiations : just a detail.....!

Nuclear aspects are certainly not a priority!

What about the management?

- **Academic Authorities**

- The Rector

- The First Vice-Rector

- The Associate Vice-Rectors

- The Chairman of the ULg-UHC Coordination Unit

- **University Authorities**

- The Rector

- The First Vice-Rector

- The Administrator

- The General Director for Training and Education

Deans of faculty:

Faculty of science

Faculty of medicine

Faculty of applied science

Gembloux Agro Bio tec

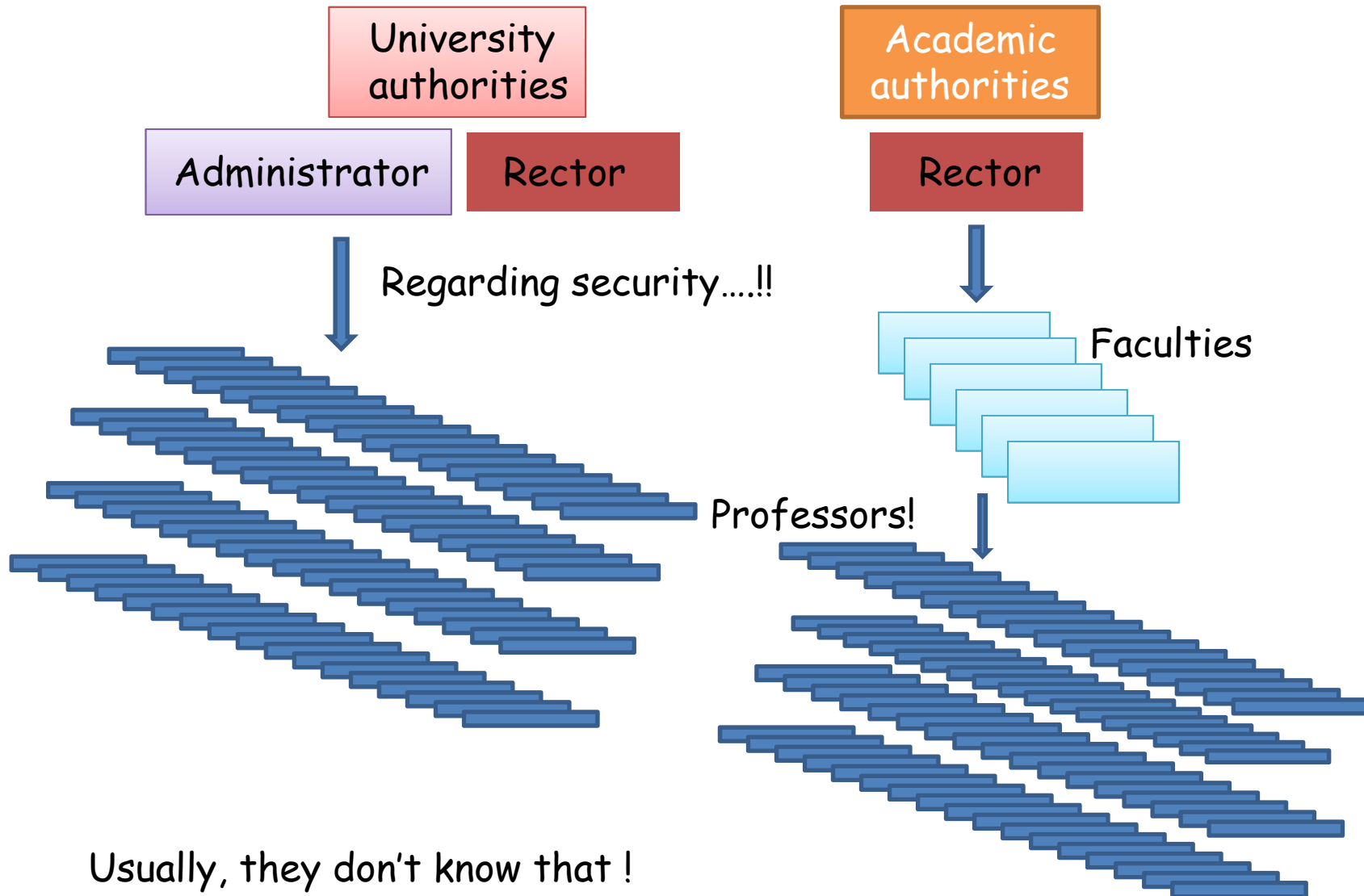
Faculty of veterinary medicine

Faculty of environmental science



Head of the services: The professors !!

It is complex...!



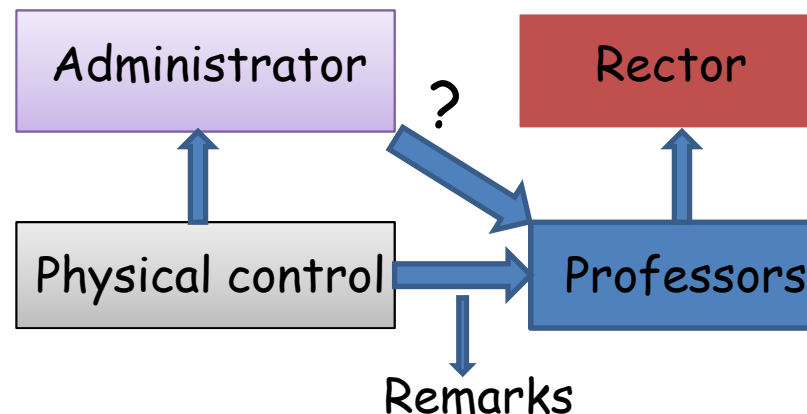
Usually, they don't know that !
Visibility of the security services is not an easy task!

Just realise that...

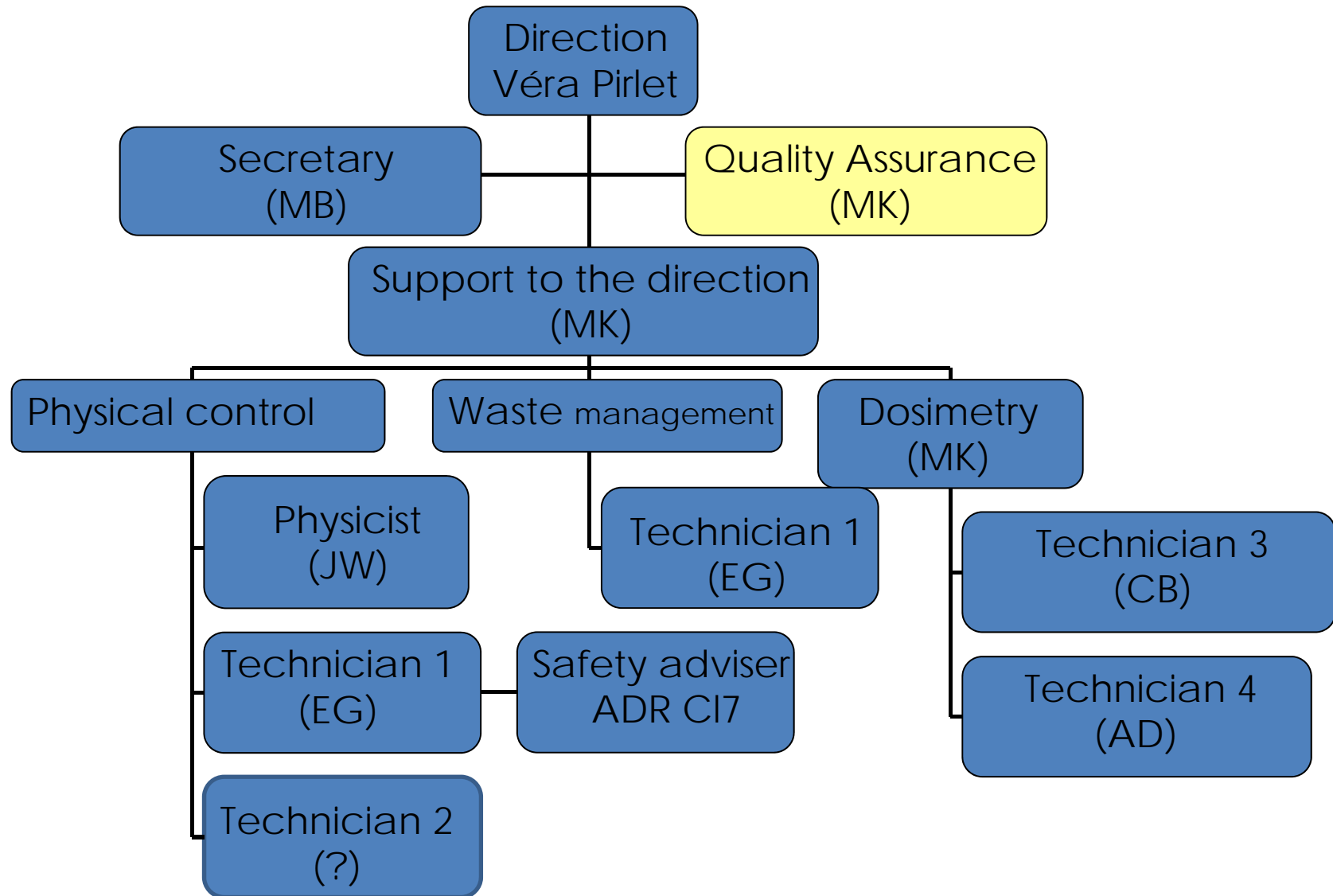
The structure and the organisation of a university compared to private companies (ex: nuclear companies) is absolutely different.

Our federal authority should realise that.

You should (must!) not transpose what happens in a nuclear establishment to a university. They have different modes of functioning.....!



Structure of the radiation protection service



Missions and tasks related to radiation protection

- Prevention and Protection of the workers, public and environment against the danger of ionising radiations (art 23 of the royal decree 20/07/2001)
 - Controls, reception and work place studies

- Dosimetry of the workers
- Ambient Dosimetry
- Waste management
- Information of the workers on radiation protection in many different fields of application (laboratories, sealed sources, Cyclotron, industrial X-rays, Nuclear medicine, radiotherapy, surgery, cardiology...)



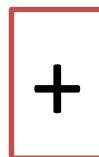
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Missions and tasks related to radiation protection (...)

- Shielding calculations



- Administration: modifications and new authorisations, transport, Importation
- Transport checks and administrations



Many other tasks not linked to the art 23..

- Teaching on radiation protection at different faculties
 - Who is the best person to give that?
- Management of the service
 - Human resources (problems, illness, holidays...)
 - Financial matters (establishment of the budget,...)
 - Annual report for the university
 - Meetings with other groups (Risk management, SIPP...)
- Consultancy (University is an establishment devoted to community public activities and requirements)



100 services using ionising radiations !!

- 47 different services at the University
 - Site: Sart-Tilman (dispersed), Gembloux, Arlon
 - 53 different services at the University Hospital
 - Site: Sart-Tilman, Chénée, Liège (3 sites), Libramont
- ➡ 100 interlocutors in different fields!
- Programme of the visits established in the beginning of the year
 - for Bel V (every month on site)
 - for ourselves as a function of the risk
 - Ex: Nuclear medicine : every month, Nuclear Physics : every 2 month.....
 - Reduction with the years because of the amount of administrative work to be done!

To help the internal qualified expert:
« Préposé à la surveillance.. »

« Préposé à la surveillance (PS) »
= support to the qualified expert on radiation protection

An important role :

- In case of accident, incident, take the first measures and calls the competent persons (SUCPR, SIPPT, SPMT)
- Repeat the rules to be followed regarding radiological protection (working place acces, dosimetry, protection equipment, working procedures, etc.)

Theory is nice but...

- PS is selected by the professor for either his authority or his scientific competency \Rightarrow does not mean that he has both!
 - No time to do their job (just a name)
- Until now, except in some cases, no teaching regarding the PS... They do not know always their role...
- The professor is the boss! Anyway...
- Except the professor and the PS, nobody knows about the remarks in the reports.
- University is an open « world » !!!!!!!!!!!
 - Master students - PhD students - Foreigners - employees
 - Continuous turn-over

Difference of relationship between the internal expert and the expert controlling the missions of the first one with the head of the services

- External experts write their remarks in their reports
 - They do not have to face the professor
 - They do not receive the phone calls...
- « Impose » things is not a good solution ⇒ try to privilege discussion and collaboration.
- People forgets very fast what you have told.
 - Repeat, repeat, repeat...
- Remarks are not taken into account
 - They do not care (vertical classification)
 - Budget
 - Human resources
 - Responsibilities of the tasks to be taken by another department
 - Management does not follow...

REM: It is exactly the same for classic safety !

In the frame of art 25 (information/teaching on radiation protection)

- Information before starting at the working place
 - Extremely hard to organise
- Annual information
 - Proposition of calendars (usually we have got answers)
 - List of the people present at the lecture (ask for signature)
 - Obligatory character but not respected
 - What can we do?
- « Teaching » before starts working (ex: CD...)
 - We tried...
 - Will be organised...

Art 25 is not a simple task!

What is the feeling of the Physical controls at universities?

- The management has other priorities !
 - do not know the field of radiological protection
 - no real interest for the field
- The management does not realise our constraints!
- Many people involved in the management with different priorities and responsibilities...
- Professors are responsible for what happens in their service! They are quite independant...
- Usually, we do not see the professors during our visits (for some, we even do not know how they look like!)

Being positive: some solutions !

- The role of the PS should be more important
 - It should be a kind of radiation protection officer inside a group \Rightarrow meaning have lectures on basic radiation protection (adapted as a function of risk level)
 - All the visits should be done with the PS
 - He should have a real recognition (status) of his job
 - Should have time to make the job!
- Every PS should be educated on radiation protection
 - Better to have external lectures to give some importance to that
 - Head of the service should be educated as well. How?

Risk management at the University

- POLITIQUE DE "RISK MANAGEMENT » AU SEIN DE L'UNIVERSITE DE LIEGE
- La décennie écoulée a vu le développement d'une sensibilisation générale du monde des organisations à la nécessité d'une approche globale de la gestion des risques.
- En 2011, l'Administrateur a inscrit, parmi les priorités de son plan opérationnel, la mise en place d'une politique institutionnelle de "RM".
- Risk Manager, Président de la Cellule "RM" :, Administrateur
- Fin 2011, l'Administrateur a donc constitué et réuni de façon informelle un groupe de réflexion et de travail opérationnel multidisciplinaire rassemblant des services déjà confrontés à la problématique et actifs dans les domaines prioritaires que sont la sécurité des personnes et des biens : Service Universitaire de Protection et Hygiène du travail (SUPHT), Service Universitaire de Contrôle Physique des Radiations (SUCPR), Service des Affaires juridiques (SAJ) et Administration des Ressources immobilières (ARI).

Radiation protection is a hard job at a university...



Internal expert is permanently between « the devil and the deep sea !

